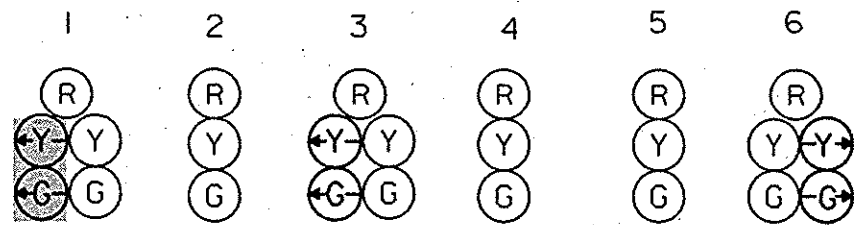


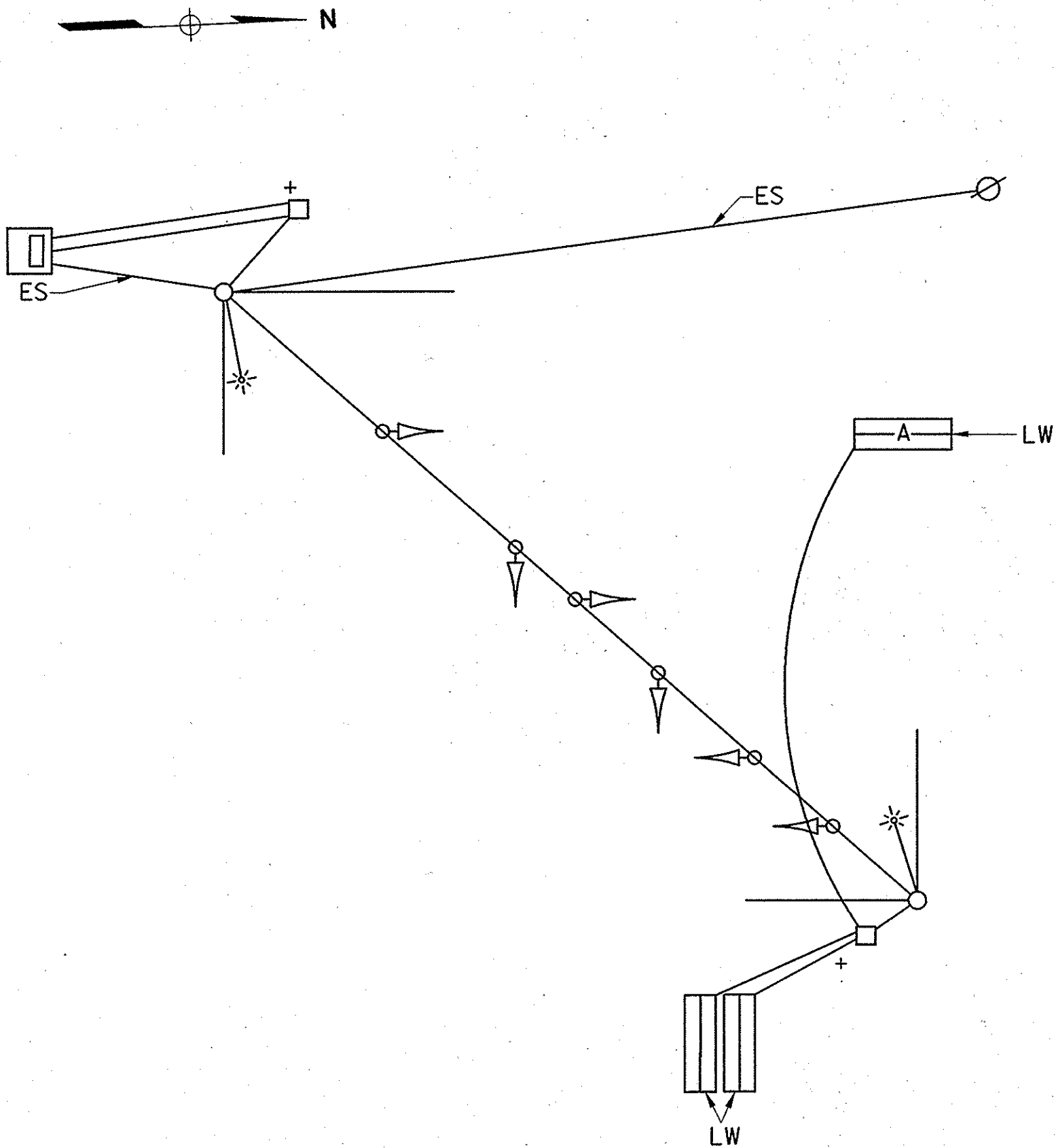
PHASE CHART



SIGNAL # 1 LEFT TURN ARROWS
ARE COVERED IN STAGE 1C

PHASE 1	G	G	R	R	R	G	
1 CHANGE	Y	G	R	R	R	Y	
PHASE 2	R	R	G	G	R	R	
2 CHANGE	R	R	Y	Y	R	R	
PHASE 4	R	R	R	R	G	G	
4 CHANGE	R	R	R	R	Y	Y	
FLASHING	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	
OPERATION	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	

WIRING DIAGRAM



EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

SPEC. SECTION	CATEGORY CODE NO.	QUANTITY	DESCRIPTION
813	973023	7.5 S.F.	SHEET ALUMINUM SIGNS - 1 EACH R3-5R SIGN (30 IN. x 36 IN.) - "LANE USE CONTROL - RIGHT ONLY" SPAN WIRE MOUNT

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

SPEC. SECTION	CATEGORY CODE NO.	QUANTITY	DESCRIPTION
104	120500	L.S.	MAINTENANCE OF TRAFFIC
805	805011	8 L.F.	FURNISH AND INSTALL 1 IN. GALVANIZED ELECTRICAL CONDUIT FOR DETECTOR SLEEVE
810	810011	560 L.F.	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO.14 AWG)
810	860265	1 EACH	FURNISH AND INSTALL LOOP DETECTOR SPLICE TO EXISTING 2 CONDUCTOR ALUMINUM SHIELDED CABLE
814	860265	4 EACH	RELOCATE EXISTING SIGNAL HEAD
814	800000	3 EACH	RELOCATE EXISTING SIGN ON SPAN WIRE
815	862102	160 LF	FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)
—	585416	10 L.F.	FURNISH AND INSTALL 24" WHITE REMOVABLE PREFORMED PAVEMENT MARKING TAPE (STOP LINE)
—	800000	L.S.	REMOVE AND DISPOSE OF EXISTING EQUIPMENT
813	813015	7.5 S.F.	INSTALL OVERHEAD SIGN

PROJECT CONTACTS

THE CONTACT PERSONS FOR DISTRICT #5 ARE AS FOLLOWS:

MR. DAVID MALKOWSKI
DISTRICT ENGINEER
PHONE: 410-321-2780

MR. RICHARD L. DAFF, SR.
CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: 410-787-7630

MR. RANDELL SCOTT
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: 410-841-5450

THE POWER COMPANY REPRESENTATIVE IS:
BALTIMORE GAS ELECTRIC COMPANY
MR. JOSEPH G. BUNCH
INDUSTRIAL / COMMERCIAL SERVICES
NEW BUSINESS CONSTRUCTION
7317 PARKWAY DRIVE SOUTH
HANOVER, MARYLAND 21076
410-859-9030

MR. JOE McMAHON
UTILITY ENGINEER
PHONE: 410-321-2780

PROJECT DESCRIPTION

GENERAL:

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING INTERSECTION TRAFFIC SIGNAL AND STREET LIGHTING AT MD 146 AND HAMPTON LANE IN BALTIMORE COUNTY. MD 146 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION:
1. NORMAL OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA THREE PHASE, SEMI-TRAFFIC ACTUATED MODE, WITH THE MD 146 APPROACHES RUNNING SPLIT AND HAMPTON LANE RUNS ALONE

CONTROLLER REQUIREMENTS:

A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH THREE (3) FOUR-CHANNEL, TIME DELAY OUTPUT LOOP DETECTOR AMPLIFIERS. INTERSECTION MONITOR WITH BATTERY BACK-UP FOR PHONE DROP, WITH SYSTEMS PACKAGE HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

SPECIAL NOTE:

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7631 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE AND PHONE NUMBER.

MAINTENANCE OF TRAFFIC

THE TRAFFIC CONTROL NUMBERS SHALL BE REFERENCED FOR THE PROJECT.

STANDARD NO. MD-105.00
STANDARD NO. MD-105.01
STANDARD NO. MD-105.02
STANDARD NO. MD-105.01 (FLAGGING OPERATION)

STANDARD NO. MD-105.103 (INTERSECTION FLAGGING OPERATION)
STANDARD NO. MD-105.105 (SHOULDER WORK)
STANDARD NO. MD-105.107 (LANE SHIFT)
STANDARD NO. MD-105.109 (LANE SHIFT)

NOTE: STANDARDS TO BE MODIFIED, BY REPLACING W21-5 SIGN WITH A W29-1 SIGN (ROAD WORK AHEAD).

WIRING KEY

- A } 2-CONDUCTOR ELECTRICAL CABLE
(ALUMINUM SHIELDED)
- LW - LOOP WIRE (NO.14 A.W.G.)
- ES - EXISTING SERVICE
- + - 3/4 IN. x 10 FT. GROUND ROD

CONSTRUCTION DETAILS

- A. RELOCATE SIGNS AND SIGNAL HEADS AS NEEDED. REMOVE SIGN # 7, 8 & 11 AND COVER SIGNAL HEAD #1 AND INSTALL SIGN # 13 AS DIRECTED BY THE ENGINEER. (APPROX. LOCATIONS ARE SHOWN ON THE SPAN) LOCATIONS ARE TO BE AS DIRECTED BY THE ENGINEER.
- B. INSTALL 24" WHITE REMOVABLE PREFORMED PAVEMENT MARKING TAPE (STOP LINE)
- C. ABANDON EXISTING LOOP DETECTOR
- D. INSTALL 6'x30' LOOP DETECTOR, ENCASED IN 1/4" FLEXIBLE TUBING (3-6-3 TURNS) QUADRUPOLE TYPE.
- E. INSTALL 1" GALVANIZED ELECTRICAL CONDUIT FOR (DETECTOR WIRE SLEEVE).
- F. DISCONNECT EXISTING LOOP DETECTOR AND INSTALL NEW LOOP DETECTOR TO EXISTING ALUMINUM SHIELDED CABLE.

RK & K
RUMMEL, KLEPPER & KAHL, LLP
CONSULTING ENGINEERS
81 MOSHER STREET
BALTIMORE, MARYLAND 21217
TEL: (410) 728-2900 FAX: (410) 383-3270

REVISIONS:	APPROVALS:
	CHIEF SIGNAL DESIGN SECTION
	ASST. DISTRICT ENGINEER - TRAFFIC
	CHIEF TRAFFIC ENGINEERING DESIGN DIVISION
	DIRECTOR OFFICE OF TRAFFIC & SAFETY

MDOT - STATE HIGHWAY ADMINISTRATION Office of Traffic & Safety TRAFFIC ENGINEERING DESIGN DIVISION LOG MILE # 03014600.85			
DRAWN BY: SMH	MD 146 (DULANEY VALLEY ROAD) AT I-695 RAMPS/HAMPTON LANE SIGNAL PLAN		
DES. BY: DLA/SMH	COUNTY: BALTIMORE		
CHK. BY: BJH			
DATE: NOVEMBER, 1998	F.A.P. NO. SEE TITLE SHEET	TS/STD. NO.: 454E-X1C-GI	SHEET NO. 110 OF 155
SCALE: N.T.S.	S.H.A. NO. BA9775372		